Plant Pathology Circular No. 51
November 1966

Florida Department of Agriculture
Division of Plant Industry

SCAB AND NECK ROT OF GLADIOLUS

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Neck rot, caused by Pseudomonas marginata (McCulloch) Stapp, is known as a serious disease of gladiolus. It has been reported from north Florida with some regularity but, apparently, has not been a problem in south Florida until 1966. Some fields in south Florida plantings suffered over *50%* loss during the 1966 growing season. This severe loss may have been the result of rather frequent rainfall and unusually high temperatures during the fall growing season.

The disease symptoms, which are easily recognized on the corms, are more or less circular, shallow depressions surrounded by an elevated margin (Fig. 1 A and B). The young lesions are slightly darker than the surrounding tissue of the corm and appear water-soaked. Gradually they turn dark brown, the epidermis splits and sloughs off, leaving a shallow pit. On the husks, oval to elongated dark brown spots are formed, often showing longitudinal cracks.

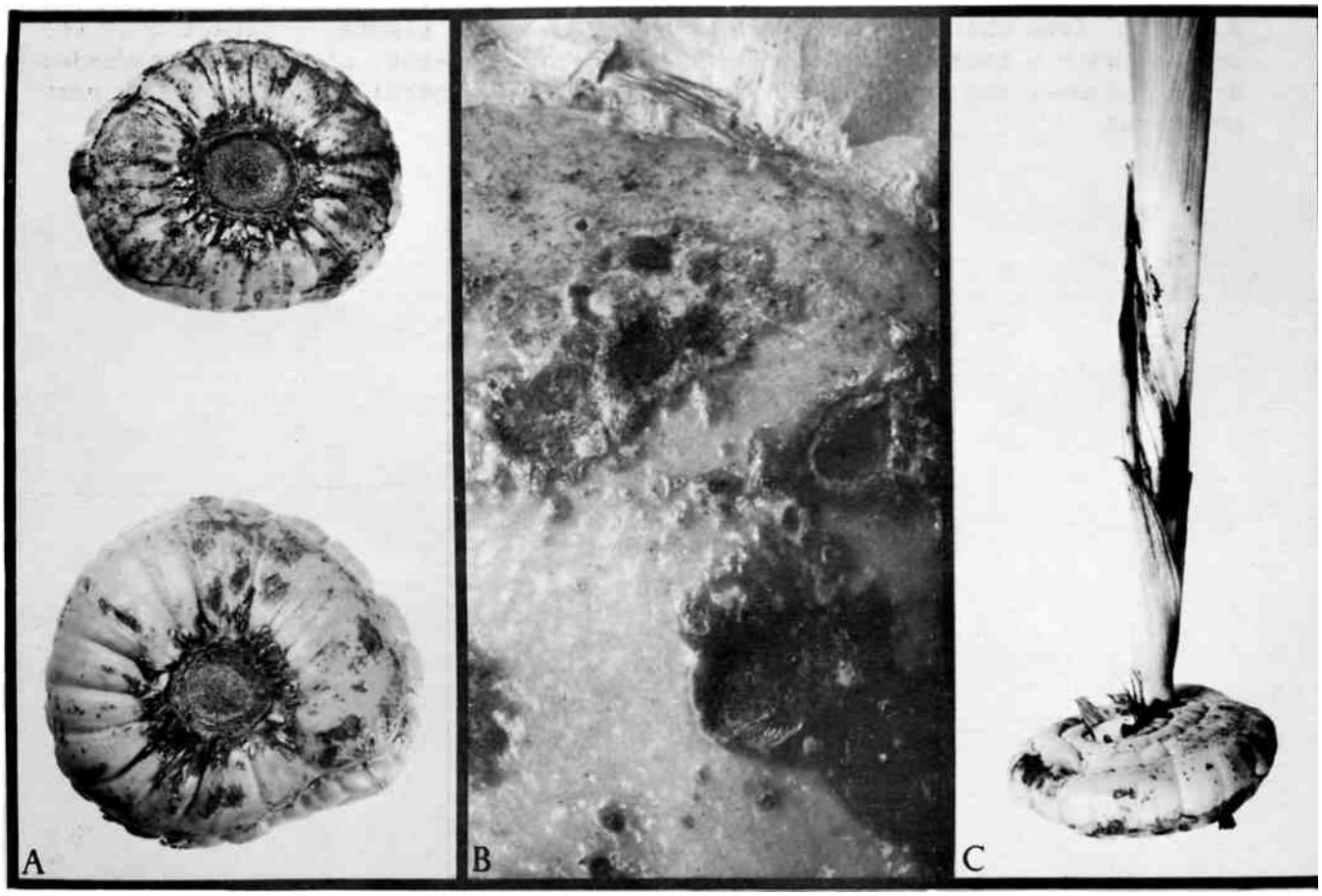

Fig. 1. Symptoms of Scab and Neck Rot of Gladiolus. A. Corms with numerous lesions of varying size. B. Scab lesions enlarged. C. Neck rot; note the strands of fiber which remain after the soft leaf tissue has rotted.

Although the lesions may appear on any part of the leaves they are mostly confined to the fleshy, basal region or "neck" of the plant. The outer leaf base is attacked first, and the enlarged lesions turn dark brown to almost black. Typical for this disease is the shredded appearance of the affected leaf bases where the unaffected fiber bundles are prominent (Fig. 1 C).

On the younger, inner leaves the spots are reddish-brown and superficial. Under conditions of high temperature and humidity the rot progresses .into the interior of the "neck," sometimes causing the plants to lodge.

CONTROL. If the corms show any symptoms of scab, they should be treated before planting. Good results have been obtained by dipping corms into solutions of mercury compounds.

It is reported that mites can act as vectors in spreading the bacterium and regular spraying of the plants with a miticide is sometimes recommended. However, mites are not the only way by which the disease can spread in the field, and the best control is to start with treated corms.

There is always a chance that some corms escape the treatment and will act as a source from which the disease spreads to other plants. Spraying of the leaves with a bactericide for the control of neck-rot, also, is recommended during summer and early fall when the disease generally appears to be most prevalent.